UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to:
OSB2000-0053-FEC

June 8, 2001

U.S. Army Corps of Engineers
Atn: Mr. Lawrence C. Evans
Regulatory Branch, CENWP-OP-G
P.O. Box 2946
Portland, OR 97208-2946

Re: Endangered Species Act Section 7 Formal Consultation and Magnuson-Stevens Act Essential Fish Habitat Consultation on the Effects of Proposed Large Woody Debris Placement Project in Dead Horse Canyon Creek, North Fork Molalla River Watershed, Molalla River Basin, Clackamas County, Oregon

Dear Mr. Evans:

Enclosed is a biological opinion (Opinion) prepared by the National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act (ESA) on the effects of the proposed large woody debris placement project on Dead Horse Canyon Creek (Clackamas County) in the Molalla River Basin, Oregon. The NMFS concludes in this Opinion that the proposed action is not likely to jeopardize Upper Willamette River (UWR) steelhead (*Onchorynchus mykiss*), or UWR chinook salmon (*O. tshawytscha*), or destroy or adversely modify critical habitat for these species. As required by Section 7 of the ESA, NMFS included reasonable and prudent measures with non-discretionary terms and conditions that NMFS believes are reasonable and appropriate to minimize the impact of incidental take associated with this action.

This Opinion also serves as consultation on Essential Fish Habitat for chinook salmon (*O. tshawytscha*) pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation Management Act and implementing regulations at 50 CFR Part 600.

Please direct any questions regarding this consultation to Ron Lindland of my staff in the Oregon State Branch Office at (503) 231-2315.

Sincerely,

Russell M Strach for

Donna Darm
Acting Regional Administrator

Endangered Species Act - Section 7 Consultation
Biological Opinion

&

Magnuson-Stevens Act
Essential Fish Habitat Consultation

Proposed Large Woody Debris Placement Project in the Dead Horse Canyon Creek Watershed
Molalla River Basin, Clackamas County, Oregon

Lead Action Agency: U.S. Department of the Army, Corps of Engineers

Consultation Conducted By: National Marine Fisheries Service,
Northwest Region

Date Issued: June 8, 2001

Refer to: OSB2001-0053-FEC

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1. ENDANGERED SPECIES ACT

1.1 Background

On February 23, 2001, the National Marine Fisheries Service (NMFS) received a letter, dated February 22, 2001, from the Corps of Engineers (COE) requesting formal consultation regarding the potential effects of a proposed large woody debris (LWD) placement project in the Dead Horse Canyon Creek watershed (Molalla River Basin) on Upper Willamette River (UWR) steelhead (*Oncorhynchus mykiss*) and their designated critical habitat. The letter described the proposed action, and concluded that the proposed action is "likely to adversely affect" (LAA) UWR steelhead in Dead Horse Canyon Creek, because juvenile UWR steelhead are likely to be rearing in the project area during implementation of the project. The COE's request for consultation did not address UWR chinook salmon (*O. tshawytscha*). Although UWR chinook salmon are not present in the project area, the project is within their designated critical habitat. Dead Horse Canyon Creek is a tributary to the North Fork of the Molalla River. The proposed project is located at stream mile 1.2 on Dead Horse Canyon Creek (T5S, R4E, Section 31).

The UWR steelhead was listed as threatened under the Endangered Species Act (ESA) by NMFS on March 25, 1999 (64 FR 14517). The UWR chinook salmon was listed as threatened under the ESA on March 24, 1999 (64 FR 14308). The NMFS designated critical habitat for UWR steelhead and UWR chinook salmon on February 16, 2000 (65 FR 7764) and issued protective regulations under section 4(d) of the ESA on July 10, 2000 (65 FR 42422). The proposed action is within designated critical habitat for UWR steelhead and UWR chinook salmon.

The objective of this Opinion is to determine whether the subject action is likely to jeopardize the continued existence of UWR steelhead, or UWR chinook salmon, or result in the destruction or adverse modification of their designated critical habitat.

1.2 Proposed Action

The proposed action is the placement of 3-5 conifer logs at each of nine locations along a 0.3 mile reach of Dead Horse Canyon Creek. The logs would be placed into the stream from an overhead cable system being used as part of a Willamette Industries timber harvesting operation in the area. Logs would be carefully positioned and lowered into place (not dropped) (telephone conversation with Jim Brick, ODFW, April 10, 2001). It should not be necessary to move logs on the ground, once they have been lowered into place. The logs would be wedged into existing streambank and riparian features, and not cabled in place. Log placement would occur from August through December, 2001, since that is the timeframe during which the logging operation would be in progress and the cable systems in place. The timber sale operators would receive direction from Oregon Department of Fish and Wildlife (ODFW) fishery biologists regarding placement of the logs in the stream. Past ODFW surveys indicate that UWR steelhead spawning activity occurs from February through April, with a peak in March in the project area. It is, therefore, unlikely that adult steelhead will be present in the project area during the time when

logs would be placed. However, an ODFW fishery biologist will visually survey the project area in December, prior to continuation of log placements, to make certain that no adult steelhead or steelhead redds are present.

1.3 Biological Information and Critical Habitat

The listing status and biological information for UWR steelhead are described in Busby et al. (1996) and NMFS (1997). The listing status and biological information for UWR chinook salmon are described in Myers et al. (1998). The NMFS designated critical habitat for UWR steelhead on February 16, 2000 (65 FR 7764) and applied protective regulations to UWR steelhead under section 4(d) of the ESA on July 10, 2000 (65 FR 42422). The adjacent riparian zone is included in this critical habitat designation.

Critical habitat for UWR steelhead includes the Willamette River and its tributaries above Willamette Falls upstream to and including the Calapooia River. Critical habitat for UWR chinook salmon includes the Clackamas River and the Willamette River and its tributaries above Willamette Falls. Freshwater critical habitat includes all waterways, substrates, and adjacent riparian areas—areas adjacent to a stream that provides the following functions: Shade, sediment, nutrient or chemical regulation, streambank stability, and input of large woody debris or organic matter—below longstanding, natural impassable barriers (i.e., natural waterfalls in existence for at least several hundred years) and several dams that block access to former UWR steelhead and UWR chinook salmon habitat. The proposed action will occur within designated critical habitat for UWR steelhead and UWR chinook salmon.

Dead Horse Canyon Creek provides spawning, rearing, and migratory habitat for both adult and juvenile life stages of UWR steelhead. Juvenile UWR steelhead are expected to be rearing in the project area during placement of the LWD. Essential features of the adult spawning, juvenile rearing, and adult and juvenile migratory habitat for the species are: 1) Substrate, 2) water quality, 3) water quantity, 4) water temperature; 5) water velocity, 6) cover/shelter, 7) food (juvenile only), 8) riparian vegetation, 9) space, and 10) safe passage conditions (50 CFR 226). The essential features that the proposed project may affect are substrate, water quality, and riparian vegetation resulting from project activities.

UWR steelhead in the Molalla River Basin are late-run winter fish which typically enter the mainstem rivers in November, with the majority arriving between January and March. As mentioned above, based on past surveys by ODFW, UWR steelhead spawning activity usually occurs from February through April with a peak in March in the project area. Steelhead fry would have all emerged from the gravel by the end of June.

UWR chinook salmon are not known to be present in Dead Horse Canyon Creek. According to ODFW (1992), UWR spawning habitat occurs primarily in the main stem Molalla River (RM 25 to RM 46), the North Fork Molalla River (RM 0 to RM 5.5), and the Table Rock Fork Molalla

River (RM 0 to RM 8). UWR chinook salmon spawn in the Molalla River from late September to the end of October, with peak activity occurring in early to mid-October.

1.4 Evaluating Proposed Action

The standards for determining jeopardy are set forth in section 7(a)(2) of the ESA as defined by 50 CFR Part 402 (the consultation regulations). NMFS must determine whether the action is likely to jeopardize the listed species and/or whether the action is likely to destroy or adversely modify critical habitat. This analysis involves the: 1) Definition of the biological requirements and current status of the listed species; and 2) evaluation of the relevance of the environmental baseline to the species' current status.

Subsequently, NMFS evaluates whether the action is likely to jeopardize the listed species by determining if the species can be expected to survive with an adequate potential for recovery. In making this determination, NMFS must consider the estimated level of mortality attributable to: 1) Collective effects of the proposed or continuing action; 2) the environmental baseline; and 3) any cumulative effects. This evaluation must take into account measures for survival and recovery specific to the listed salmonid's life stages that occur beyond the action area. If NMFS finds that the action is likely to jeopardize, NMFS must identify reasonable and prudent alternatives for the action.

Furthermore, NMFS evaluates whether the action, directly or indirectly, is likely to destroy or adversely modify the listed species' designated critical habitat. The NMFS must determine whether habitat modifications appreciably diminish the value of critical habitat for both survival and recovery of the listed species. The NMFS identifies those effects of the action that impair the function of any essential element of critical habitat. The NMFS then considers whether such impairment appreciably diminishes the habitat's value for the species' survival and recovery. If NMFS concludes that the action will destroy or adversely modify critical habitat it must identify any reasonable and prudent alternatives available.

For the proposed action, NMFS' jeopardy analysis considers direct or indirect mortality of fish attributable to the action. NMFS' critical habitat analysis considers the extent to which the proposed action impairs the function of essential biological elements necessary for juvenile and adult migration, spawning, and rearing of the UWR steelhead under the existing environmental baseline.

1.4.1 Biological Requirements

The first step the NMFS uses when applying the ESA section 7(a)(2) to listed steelhead is to define the species' biological requirements that are most relevant to each consultation. The NMFS also considers the current status of the listed species taking into account population size, trends, distribution and genetic diversity. To assess the current status of the listed species, NMFS starts with the determinations made in its decision to list UWR steelhead and UWR

chinook salmon for ESA protection and also considers new data available that is relevant to the determination.

The relevant biological requirements are those necessary for UWR steelhead and UWR chinook salmon to survive and recover to naturally reproducing population levels at which protection under the ESA would become unnecessary. Adequate population levels must safeguard the genetic diversity of the listed stock, enhance their capacity to adapt to various environmental conditions, and allow them to become self-sustaining in the natural environment.

For this consultation, the biological requirements are improved habitat characteristics that function to support successful adult and juvenile migration, spawning and rearing. UWR steelhead survival in the wild depends upon the proper functioning of certain ecosystem processes, including habitat formation and maintenance. Restoring functional habitats depends largely on allowing natural processes to increase their ecological function, while at the same time removing adverse impacts of current practices. In conducting analyses of habitat-altering actions, NMFS defines the biological requirements in terms of a concept called Properly Functioning Condition (PFC) and applies a "habitat approach" to its analysis (NMFS 1999). The current status of the UWR steelhead and UWR chinook salmon, based upon their risk of extinction, has not significantly improved since the species were listed.

1.4.2 Environmental Baseline

The environmental baseline is an analysis of the effects of past and ongoing human-caused and natural factors leading to the current status of the species or its habitat and ecosystem within the action area. The action area is defined as, "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50 CFR 402.02). The action area for this consultation, therefore, includes the streambed and streambank of Dead Horse Canyon Creek within the area of disturbance at the project site and downstream to the extent of visible short-term turbidity increases resulting from the project work.

The current population status and trends for UWR steelhead are described in Busby et al. (1996) and in NMFS (1997), while those for UWR chinook salmon are described in Myers et al. (1998). In general, the current status of UWR steelhead and UWR chinook salmon populations is the result of several long-term, human-induced factors (e.g. habitat degradation, water diversions, hydropower dams) that serve to exacerbate the adverse effects of natural environmental variability from such factors as drought, floods, and poor ocean conditions.

In the project area, which is located at stream mile 1.2 on Dead Horse Canyon Creek, the active channel width ranges from 28 to 35 feet at the nine sites where LWD would be placed. Stream gradient is 1 to 2 percent at four of the sites and 2-3 percent at five of the sites. The stream reach is considered to be lacking in LWD. In 1994, ODFW conducted an aquatic inventory of Dead Horse Canyon Creek (ODFW 1994). Reach 1 of that inventory extended from the mouth upstream for 2,789 meters (approximately 1.8 miles). The proposed project is within that stream

reach. The inventory noted that LWD was very limited in this stream reach. Wetted area of the stream was composed of 52 percent rapids and 27 percent cascades. Stream substrate was 37 percent cobble and 29 percent gravel. Streambanks were 89 percent stable.

1.5 Analysis of Effects

1.5.1 Effects of Proposed Action

The proposed action, as described above in Section 1.2, is to place conifer logs in Dead Horse Canyon Creek at several locations by lowering them into place from overhead yarding cables. This method of log placement is expected to result in minimal disturbance of stream substrate, and, therefore minimal displacement of any sediment which may be present in the stream substrate. The overhead cable method of log placement is also expected to minimize streambank disturbance and disturbance of riparian vegetation. Even though substrate disturbance is expected to be minimal, some short term turbidity may occur in Dead Horse Canyon Creek. The short term increase in turbidity could result in temporarily reduced feeding efficiency for juvenile UWR steelhead in the project area and for a short distance downstream.

The Oregon Department of Fish and Wildlife's (ODFW) preferred in-water work period for Dead Horse Canyon Creek is between July 1 and August 31 (ODFW 2000). However, since juvenile UWR steelhead rear in Dead Horse Canyon Creek year-round, they would be expected to be present in the project area even during that time frame. Since juvenile UWR steelhead are expected to be present in the project area, there is the possibility that placement of the logs could kill or injure juvenile UWR steelhead. Direct mortality is expected to be minimal, because juvenile fish will likely avoid the logs as they are being lowered into the streambed and can move freely upstream or downstream from the project site.

As described above, UWR steelhead in the Molalla River Basin are late-run winter fish which typically enter the mainstem rivers in November with the majority arriving between January and March. Based on past surveys by ODFW, UWR steelhead spawning activity usually occurs from February through April with a peak in March in the project area. Steelhead fry would have all emerged from the gravel by the end of June. Therefore, no UWR steelhead adults, incubating eggs, or pre-emergent fry are expected to be present in Dead Horse Canyon Creek during project implementation.

UWR chinook salmon are not known to be present in Dead Horse Canyon Creek. Since placement of the logs is expected to cause only a minimal short term increase in turbidity in Dead Horse Canyon Creek, the action is "not likely to adversely affect" (NLAA) UWR chinook salmon or their critical habitat downstream in the North Fork Molalla River.

The logs would be wedged into existing streambank and riparian features, and not cabled in place. Roni et al. (2000) citing Thom (1997) stated that pinning channel spanning logs between trees in the riparian zone has been shown to be an effective method of naturally anchoring LWD.

Addition of LWD to Dead Horse Creek will increase instream cover for rearing juvenile UWR steelhead. Placement of the LWD could also result in the formation of pools and an increase in stream channel complexity. Over the long term, suitable spawning substrate could collect in the vicinity of the LWD.

1.5.2 Cumulative Effects

"Cumulative effects" are defined in 50 CFR 402.02 as those effects of "future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." The action area for this consultation includes the streambed and streambank of Dead Horse Canyon Creek within the area of disturbance at the project site and downstream to the extent of visible short-term turbidity increases resulting from the project work. NMFS is not aware of any specific future actions which are reasonably certain to occur on non-Federal lands within the Dead Horse Canyon Creek watershed.

1.6 Conclusion

NMFS has determined that, when the effects of the LWD placement project addressed in this Opinion are added to the environmental baseline and cumulative effects occurring in the action area, it is not likely to jeopardize the continued existence of UWR steelhead or UWR chinook salmon. Additionally, NMFS concludes that the subject action would not cause adverse modification or destruction of designated critical habitat for UWR steelhead or UWR chinook salmon. NMFS believes that the proposed action would cause a minor, short-term increase in stream turbidity in Dead Horse Canyon Creek. These effects will be offset in the long term through the habitat enhancement activities. Although direct mortality of juvenile UWR steelhead from this project could occur during inwater work, it is not expected, and the level of mortality would be minimal and would not result in jeopardy.

These conclusions are based on the following considerations: 1) An ODFW fishery biologist will provide guidance to the timber sale operators in the placement of LWD in Dead Horse Canyon Creek; 2) an ODFW fishery biologist will survey the stream reach affected by the proposed project in December, prior to continuing log placement, to make certain that no adult UWR steelhead or redds are present; 3) placement of LWD using overhead yarding cables is expected to result in minimal disturbance of stream substrate, the streambank, and riparian vegetation; 4) UWR chinook salmon are not present in Dead Horse Canyon Creek; and 5) NMFS expects that the net effect of the proposed action will be to maintain or help restore properly functioning habitat conditions in this section of Dead Horse Canyon Creek.

1.7 Conservation Recommendations

Section 7 (a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of threatened and endangered species. Conservation recommendations are discretionary measures suggested to

minimize or avoid adverse effects of a proposed action on listed species, to minimize or avoid adverse modification of critical habitat, or to develop additional information. The NMFS has no additional conservation recommendations regarding the action addressed in this Opinion.

1.8 Reinitiation of Consultation

Reinitiation of consultation is required if: 1) The action is modified in a way that causes an effect on the listed species that was not previously considered in the BA and this Opinion; 2) new information or project monitoring reveals effects of the action that may affect the listed species in a way not previously considered; or 3) a new species is listed or critical habitat is designated that may be affected by the action (50 CFR 402.16).

2. INCIDENTAL TAKE STATEMENT

Section 4(d) and Section 9 of the ESA prohibit any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of listed species without a specific permit or exemption. Harm is defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, and sheltering (64 FR 60727; November 8, 1999). Harass is defined as actions that create the likelihood of injuring listed species to such an extent as to significantly alter normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. Incidental take is take of listed animal species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful activity. Under the terms of Section 7(b)(4) and Section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement. An incidental take statement specifies the impact of any incidental taking of threatened species. If necessary, it also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures.

2.1 Amount or Extent of Take

The NMFS anticipates that the subject action covered by this Opinion has more than a negligible likelihood of resulting in incidental take of UWR steelhead. Some minimal level of incidental take is expected to result from direct mortality or injury to juvenile UWR steelhead during log placement. The temporary increase in stream turbidity could result in temporarily reduced feeding efficiency for juvenile UWR steelhead. Direct mortality is expected to be minimal, because juvenile UWR steelhead are able to avoid instream log placement. Effects from turbidity are also expected to be minimal, because turbidity levels will quickly return to pre-construction levels once instream work is completed. Because of the inherent biological characteristics of aquatic species such as UWR steelhead, the likelihood of discovering take

attributable to this action is very limited. Effects of actions such as that addressed in this Opinion are largely unquantifiable in the short term, and may not be measurable as long-term effects on the species' habitat or population levels. Therefore, although NMFS expects some incidental take to occur (primarily through harassment) due to the action covered by this Opinion, the best scientific and commercial data available are not sufficient to enable NMFS to estimate a specific amount of incidental take of listed fish at any life stage.

2.2 Effect of the Take

In this Opinion, NMFS has determined that the level of anticipated take is not likely to result in jeopardy to UWR steelhead or UWR chinook salmon or to destroy or adversely modify designated critical habitat when the reasonable and prudent measures are implemented.

2.3 Reasonable and Prudent Measures

The NMFS believes the following reasonable and prudent measures are necessary and appropriate to minimize the likelihood of take of UWR steelhead resulting from the action covered by this Opinion. The COE shall include, as part of the Section 404 permit, measures that will:

1. Minimize the likelihood of incidental take resulting from inwater work required to complete the project addressed in this Opinion.

2. Minimize the likelihood of incidental take and impacts on critical habitat resulting from erosion associated with this project by implementing measures that minimize the movement of soils and sediment both into and within the stream, and will stabilize bare soil over both the short term and long term.

3. Minimize the likelihood of incidental take and impacts on critical habitat resulting from loss of instream habitat and riparian vegetation in the project area.

4. Complete a comprehensive monitoring and reporting program to ensure this Opinion is meeting its objective of minimizing the likelihood of take from permitted activities.

2.4 Terms and Conditions

To be exempt from the prohibitions of section 9 of the ESA, the COE must require, as part of the Section 404 Permit, and the applicant and/or their contractors must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. To implement reasonable and prudent measure #1, above, the COE shall ensure that:

a. Logs are positioned carefully and lowered slowly into place to minimize the potential for direct mortality or injury to any juvenile UWR steelhead which may be present in the project area.

b. ODFW fisheries personnel will check the project area and upstream and downstream from the project area for approximately 300 yards to ensure that no adult UWR steelhead or steelhead redds are present during December.

c. Logs do not inhibit passage of adult or juvenile UWR steelhead.

2. To implement reasonable and prudent measure #2, above, the COE shall ensure that:

a. Disturbance of streambanks and stream substrate is minimized when lowering logs into final position and in wedging them into place.

3. To implement reasonable and prudent measure #3, above, the COE shall ensure that:

a. Disturbance of existing riparian vegetation is minimized at the project site.

b. If riparian shrubs and grasses are disturbed to the extent that streambank erosion is likely, all disturbed areas resulting from positioning and placement of the logs at the project site are revegetated with native grasses, shrubs, and trees where soils are appropriate for a reasonable expectation of success of the plantings.

c. If plantings are necessary, the success of plantings at the project site will be monitored on at least three occasions (e.g. one month, six months, and one year), or more often if necessary, after completion of the project.

4. To implement Reasonable and Prudent Measure #4, above, the COE shall ensure that:

a. Within 30 days of completing the project, the COE will submit a monitoring report to NMFS describing the COE's success meeting these terms and conditions. This report will consist of the following information:

i. Project identification.

(1) Project name;

(2) starting and ending dates of work completed for this project; and

(3) the name and address of the construction supervisor.

ii. A narrative assessment of the project's effects on natural stream function.

iii. Photographic documentation of environmental conditions at the project site before, during and after project completion.

(1) Photographs will include general project location views and close-ups showing details of the project area and project, including pre and post construction.

(2) Each photograph will be labeled with the date, time, photo point, project name, the name of the photographer, and a comment describing the photograph's subject.

(3) Relevant habitat conditions include characteristics of channels, streambanks, riparian vegetation, flows, water quality, and other visually discernable environmental conditions at the project area, and upstream and downstream of the project.

b. If a dead, injured, or sick endangered or threatened species specimen is located, initial notification must be made to the National Marine Fishery Service Law Enforcement Office, located at Vancouver Field Office, 600 Maritime, Suite 130, Vancouver, Washington 98661; telephone: 360/418-4246. Care should be taken in handling sick or injured specimens to ensure effective treatment and care or the handling of dead specimens to preserve biological material in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered and threatened species or preservation of biological materials from a dead animal, the finder has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

c. Monitoring reports will be submitted to:

National Marine Fisheries Service
Oregon State Branch Office, Habitat Division
Attn: OSB2001-0053-FEC
525 NE Oregon Street, Suite 500
Portland, Oregon 97232-2778

3. ESSENTIAL FISH HABITAT

3.1 Background

The objective of the Essential Fish Habitat (EFH) consultation is to determine whether the proposed action may adversely affect designated EFH for relevant species, and to recommend conservation measures to avoid, minimize, or otherwise offset potential adverse effects to EFH resulting from the proposed action.

3.2 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires the inclusion of EFH descriptions in Federal fishery management plans. In addition, the MSA requires Federal agencies to consult with NMFS on activities that may adversely affect EFH.

EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (MSA §3). For the purpose of interpreting the definition of essential fish habitat: Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities; necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and ``spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle (50CFR600.110).

Section 305(b) of the MSA (16 U.S.C. 1855(b)) requires that:

- Federal agencies must consult with NMFS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH;
- NMFS shall provide conservation recommendations for any Federal or State activity that may adversely affect EFH;
- Federal agencies shall within 30 days after receiving conservation recommendations from NMFS provide a detailed response in writing to NMFS regarding the conservation recommendations. The response shall include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the conservation recommendations of NMFS, the Federal agency shall explain its reasons for not following the recommendations.

The MSA requires consultation for all actions that may adversely affect EFH, and does not distinguish between actions within EFH and actions outside EFH. Any reasonable attempt to encourage the conservation of EFH must take into account actions that occur outside EFH, such as upstream and upslope activities, that may have an adverse effect on EFH. Therefore, EFH

consultation with NMFS is required by Federal agencies undertaking, permitting or funding activities that may adversely affect EFH, regardless of its location.

3.3 Identification of EFH

The Pacific Fisheries Management Council (PFMC) has designated EFH for Federally-managed fisheries within the waters of Washington, Oregon, and California. Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the PFMC), and longstanding, naturally-impassable barriers (i.e., natural waterfalls in existence for several hundred years)(PFMC 1999).

Detailed descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14 to the Pacific Coast Salmon Plan (PFMC 1999). Assessment of the potential adverse effects to these species' EFH from the proposed action is based on this information.

The Pacific Fisheries Management Council (PFMC) has designated EFH for three species of Pacific salmon: chinook (*Oncorhynchus tshawytscha*); coho (*O. kisutch*); and Puget Sound pink salmon (*O. gorbuscha*)(PFMC 1999). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the PFMC), and longstanding, naturallyimpassable barriers (i.e., natural waterfalls in existence for several hundred years). Detailed descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14 to the Pacific Coast Salmon Plan (PFMC 1999). Assessment of potential adverse effects to these species' EFH from the proposed action is based on this information.

3.4 Proposed Action

The proposed action is detailed above in Part 1.2 . The "action area" for this consultation includes the streambed and streambank of Dead Horse Canyon Creek within the area of disturbance at the project site and downstream to the extent of visible short-term turbidity increases resulting from the project work. This area has been designated as EFH for chinook salmon.

3.5 Effects of Proposed Action

Spring chinook salmon spawn, rear, or migrate in the North Fork of the Molalla River, to which Dead Horse Canyon Creek is a tributary. Since implementation of the log placement project in Dead Horse Canyon Creek is not expected to impact the North Fork Molalla River (over one mile downstream from the project site), NMFS believes the project is unlikely to adversely affect EFH for chinook salmon. Coho salmon are not present in the North Fork Molalla or its

tributaries (ODFW 1992). Information submitted by the COE in its request for consultation and additional information provided by ODFW is sufficient for NMFS to conclude that the effects of the proposed action are transient, local, and of low intensity and are not likely to adversely EFH in the long term. NMFS also believes that the conservation measures proposed as an integral part of the action would avoid, minimize, or otherwise offset potential adverse impacts to designated EFH. The purpose of this Opinion is to address potential incidental take of juvenile UWR steelhead which are likely to be rearing in the project area at the time of project implementation.

3.6 Conclusion

The NMFS believes that implementation of the LWD placement project in Dead Horse Canyon Creek is unlikely to adversely affect designated EFH for chinook salmon in the Molalla River Basin.

3.7 EFH Conservation Recommendations

Pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act, NMFS is required to provide EFH conservation recommendations for any Federal or state agency action that would adversely affect EFH. However, because implementation of the subject action is unlikely to adversely affect designated EFH for chinook salmon, the NMFS has no conservation recommendations at this time.

3.8 Statutory Response Requirement

Please note that the Magnuson-Stevens Act (setion 305(b)) and 50 CFR 600.920(j) requires the Federal agency to provide a written response to NMFS' EFH conservation recommendations within 30 days of its receipt of this letter. However, since NMFS did not provide conservation recommendations for this action, a written response to this consultation is not necessary.

3.9 Consultation Renewal

The COE must reinitiate EFH consultation with NMFS if either the action is substantially revised or new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR 600.920).

4. LITERATURE CITED

Section 7(a)(2) of the ESA requires biological opinions to be based on "the best scientific and commercial data available." This section identifies the data used in developing this in addition to the BA and additional information requested by NMFS and provided by the NRCS.

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